

DESCRIPTION

- Permanent installation system, selectable single-amp or bi-amp
- Rotatable HF horn provides mounting options

The MK2300 Series of 2-way, high output, trapezoidal loudspeakers are designed as main PA for smaller venues, including houses of worship, auditoriums/theaters, A/V systems, hotel ballrooms, and meeting rooms. The Series is also ideal for distributed or fill purposes in larger venues, including houses of worship, auditorium/theaters, arenas, stadiums, nightclubs, and themed-entertainment complexes.

To meet the design goals for the intended applications, EAW engineers developed a new, high performance, 3-inch voice coil, compression driver mating it to a selection of six different HF horns with patterns from 60° x 45° to 120° x 60° . The horns are as large as the enclosure size allows to maintain consistent directivity throughout the HF passband. A 3-inch voice coil, 12 inch LF driver, was designed to complement the sonic character and output of the HF driver. All MK2300 models are carefully voiced to sound similar, permitting diverse horn patterns to be mixed throughout an installation while maintaining the same sonic quality. The results are cleaner, usable, high-fidelity output to significantly higher levels than is normally expected from loudspeakers of this size and price.

Single-amp and bi-amp operating modes are user-selectable. In single-amp mode, the beamwidth-matching passive crossover is designed for even power response through crossover, low power losses, and high power handling. In bi-amp mode a digital signal processor (DSP) is required, providing sophisticated processing to maximize performance.

Foam-backed grilles hide the drivers from view for pleasing aesthetics. Thirteen mounting points allow enclosures to be mounted in virtually any configuration. Additional mounting points mate with OmniMount® 120.0 Series or similar brackets. Standard colors are black and white. Other colors can be specified as a special order items.

The MK2300 are the smaller companions to the MK5300 Series loudspeakers. Enclosures for both series are the same height facilitating installation where more than one horn pattern and/or type of loudspeaker capability is needed. Six Year Warranty.

2-WAY FULL-RANGE 90° x 45°

See NOTES TABULAR DATA for details

CONFIGURATION

Subsystem

	Transducer	Loading
LF	1x 12 in cone	Vented
HF	1x 1.4 in exit, 3 in voice	Horn-loaded
	coil compression driver	

Operating Mode

	Amplifier Channels	External Signal Processing
Single-amp	LF/HF	High pass filter
Bi-amp	LF, HF	DSP w/2-way filters
PERFORMANCE 1		
Operating Range	70 Hz to 20 kHz	
Nominal Beamwidth	(rotatable)	
Horz	90°	

Axial Sensitivity (whole space SPL)

Vert 45°

LF/HF	97 dB	70 Hz to 20 kHz
LF	97 dB	70 Hz to 1820 Hz
HF	109 dB	1290 Hz to 17 kHz

Input Impedance (ohms)

	Nominal	Minimum
LF/HF	8	7.2 @ 178 Hz
LF	8	7.1 @ 290 Hz
HF	8	8.5 @ 6050 Hz

High Pass Filter

High Pass =>60 Hz. 12 dB/octave Butterworth

Accelerated Life Test 2

LF/HF	69 V 600 W @ 8 ohm	
LF	69 V	600 W @ 8 ohm
HF	35 V	150 W @ 8 ohm

Calculated Axial Output Limit (whole space SPL)

	Average	Peak	
LF/HF	125 dB	131 dB	
LF	125 dB	131 dB	
HF	131 dB	137 dB	

ORDERING DATA

Description	Part Number	r
MK2394 2-Way Full-Range Loudspeaker Black	0013195	
MK2394 2-Way Full-Range Loudspeaker White	0013755	
MK2394 2-Way Full-Range Loudspeaker Black-WF	0013785	

Optional Accessories

Eyebolt/Forged Shoulder (3/8-16 x 1.25 in)	104001
MK2/5000 U-Bracket Black	0007869
MK2/5000 U-Bracket White	0015076

¹ To achieve specified performance, the listed external signal processing with EAW-provided settings is required.

² For recommendations to select power amplifier size refer to: "HOW MUCH AMPLIFIER POWER DO I NEED?" on the EAW web site.

ENCLOSURE

Material Baltic birch plywood

Finish Wear resistant textured black paint

Grille Powder-coated perforated steel 4/21/05 EASTERN ACOUSTIC WORKS DOCUMENT CONTROL PER SPECIFICATION 4.5.201 APVD/DATE /MK2394 ' SPECIFICATION] ONE MAIN STREET WHITINSVILLE, MA 01588 SCALE: 1 TO 1. SYMBOL ●INDICATES MOUNTING POINT, 3/8-16 THREADED HOLE (NUT PLATE).
2. SYMBOL ◎INDICATES MOUNTING POINT, 3/8-16 THREADED HOLE (PI ANGLE).
3. SYMBOL ⊖INDICATES MOUNTING POINT, 5/16-18 T-NUT FOR SERIES 120 OMNI MOUNT.
4. SYMBOL ⊕INDICATES CENTER OF BALANCE.
5. WEIGHT APPROX. 59.50 Ib [27 kg].
6. SHIPPING WEIGHT APPROX. 69.00 Ib [31.3 kg]. SS FINISHED 94 REVISED AND RELEASED TO PRODUCTION FROM PROTOTYPE REV 1 PER MCOWHT1474 DM 4/15/05 MK2394 00131 1 OF CABINET [MECHANICAL SHEET DESCRIPTION [127.0] 5.00 2/18/05 4/25/05 4/26/05 4/26/05 3.44 [87.4] **PRODUCTION** BACK RES MELANIE ⋖ **APPROVALS** В SM 3 STATUS: 4.00 4 DIMENSIONS ACROSS CENTERLINES TO BE SYMMETRICAL UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE INCHES [MILLIMETERS] TSC=THEORETICAL SHARP CORNER INPUT TOLERANCES LINEAR ± 0.13 in/ ± 3.3 mm ANGLES ±1* (X.XX) = REF DIMS NO TOLERANCE IMPLIED DIMENSIONS APPLY TO BOTH SIDES VIEW A-A 7.00 (NOT TO SCALE) 6.26 159.0] \sim (THIS DRAWING IS THE PROPERTY
COPIED, REPRODCED, TO SEAL NOT BE
COPIED, RESISTED FOR MANIFACTINE
OR SALE OF APPARATION WITHOUT
SCALE DRAWING. DO NOT
SCALE DRAWING. **PROJECTION** THIRD ANGLE **GRILLE PARTIALLY SHOWN** TOP/BOTTON 0 69.9

NOTES: This drawing has been reduced. Do not scale. For WP version, add 0.25 in / 6.4 mm to the outside dimensions = 0.125 in / 3.2 mm all around.

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